REMARKS

Entry of the foregoing and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

By the foregoing amendment, claims 2-3 have been canceled without prejudice or disclaimer of the subject matter recited therein. Further, claims 1, 4, 18, 20, 21, and 24-27 have been amended to further clarify Applicants' invention, and new claims 29-30 have been added. No new matter has been added.

I. Rejections Under 35 U.S.C. § 112

Claims 1-18, 20 and 22-28 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

This rejection is rendered moot in light of the cancellation of claims 2 and 3 and the amendments to claims 1, 4, 18, 20, 21, and 24-27. No narrowing has been effected. For instance, the relevant amended claims in context were always drawn to methods where cell lysis is promoted.

Accordingly, applicants respectfully request withdrawal of this rejection.

II. Rejections Under 35 U.S.C. § 102

Claims 20, 21 and 27 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kempken et al. (J. Indust. Micro., 14:52-7, 1995). Applicants respectfully traverse this rejection.

The claimed invention relates to, *inter alia*, methods to i) release viruses from animal cells containing said viruses, ii) prepare a cell lysate, or iii) prepare an organism, organelle or biological molecule, comprising subjecting the cells to continuous centrifugation under conditions effective to concentrate the cells into a cell pellet (while separating the supernatant), and ejecting the pelleted cells from the centrifuge into a collection receptacle, under conditions effective to lyse said cells in a single unit operation.

Neither Kempken et al. nor Schoofs et al. teach or suggest the fact that the cell "pellet" that results from centrifugation and ejection is a cell lysate that contains the product (e.g. adenoviruses, organisms, organelles, biological molecules, etc.).

Neither reference even remotely suggests promoting cell lysis during, e.g., ejection, or any other feature of the invention as a whole

The Kempken et al. reference is cited by the Examiner as allegedly teaching a method during which hybridoma cells expressing IgG are centrifuged and the cells and IgG are collected. Specifically, the Examiner states that during centrifugation, some cells are lysed and no additional treatment was applied in order to lyse the cells.

However, Kempken et al. describes a continuous centrifugation process designed to separate whole cells from product-containing fluid. In Kempken et al., mammalian cells secrete product into the medium which must then be separated. The goal of Kempken is to minimize cell lysis because such lysis will contaminate the product-containing fluid. In fact, on page 55 of Kempken et al., first full paragraph, Kempken et al. states that "[f]or our specific objective, it was not essential that the cells are viable but that they do not burst and release particles and contaminating substances into the product-containing culture fluid and thus the supernatant." (emphasis added) Kempken et al. clearly does not use conditions to promote lysis but rather just the opposite-to avoid lysis. Accordingly, Kempken et al. is clearly not anticipatory.

Claim 20 has been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Schoofs et al. (Cytotechnology, 28:81-9, 1998). Applicants respectfully traverse this rejection.

Claim 20 relates to a method for preparing a cell lysate, consisting of subjecting cells to continuous centrifugation to form a cell pellet, and ejecting the pelleted cells into a collection receptacle under conditions which lyse the cells to form a cell lysate.

Like Kempken et al., Schoofs et al. also does not teach the claimed invention. The Examiner states that Schoofs et al. "teaches a method of harvesting adenovirus by means of centrifuging cells into pellets." The Examiner then states that "ejection into a collection receptacle could be interpreted broadly to mean transfer to another centrifuge tube for further treatment." However, it is respectfully submitted that the quoted phrase could not reasonably be so interpreted in context. Nevertheless, the new language makes the correct interpretation even clearer, without narrowing. As mentioned above, the centrifugation process in the claimed invention prepares a cell lysate, not just a cell pellet that requires further treatment to create a cell lysate. Schoofs' is entirely different. Schoofs' freeze-thaw cycles actually lyse the cells, creating the cell lysate, and after a second centrifugation the pellet can be discarded.

This is very different from the claimed invention where the cells are centrifuged and then ejected into a collection receptacle under conditions to lyse the cells to form a cell lysate.

Thus, it is clear that neither Kempken et al. nor Schoofs et al. teach each and every element of the claimed invention.

Accordingly, applicants respectfully request withdrawal of these rejections.

III. Rejections Under 35 U.S.C. § 103

Claims 1-19 and 24-28 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kempken et al. in view of Schoofs et al. Applicants respectfully traverse this rejection.

As discussed above, Kempken et al. and Schoofs et al. do not teach or suggest the claimed invention. Kempken et al. minimizes cell lysis because cell lysis will contaminate the product-containing supernatant (see page 55 of Kempken et al., first full paragraph). Thus, if anything, it is non-analogous art. *In re Clay*, 23 U.S.P.Q.2d 1058 (CAFC 1992). Schoofs et al. uses the freeze-thaw method to lyse cells and, if anything, teaches away.

Not only do these references fail to teach or suggest the claimed invention, but the combination of these references makes no sense. In Kempken et al., cell lysis is avoided to reduce contaminating the supernatant, and in Schoofs et al., cell lysis by the freeze-thaw method is preformed to obtain viral particles.

Thus, based on the foregoing, the skilled artisan would not be motivated by Kempken et al. and Schoofs et al., singly or in combination, to produce a cell lysate by any claimed method.

Accordingly, applicants respectfully request withdrawal of this rejection.

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney or agent concerning such questions so that prosecution of this application may be expedited.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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